

Application No. 10/660,461
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Amendments to the Specification

The two full paragraphs on page 8 have been amended to read as follows:

The healing membranes used in practicing the methods of the present invention can include polylactide polymers and/or co-polymers. The resorbable healing membrane of the present invention is preferably smooth and non-porous. Moreover, the healing membrane is preferably bioabsorbable in the body. In one embodiment, the healing membrane material comprises about 60% to about 80% of a polylactide polymer, and about 20% to about 40% of a co-polymer. For example, a healing membrane may comprise ~~70:30 poly-L-lactide-co-D-lactide~~ and ~~poly-L-lactide (PLA)~~. As presently embodied, the material comprises poly (L-lactide-co-D,L-lactide) 70:30 Resomer LR708 manufactured and supplied from Boehringer Ingelheim KG of Germany. In one embodiment, the healing membrane has an intrinsic viscosity of about 3 to about 7, preferably about 3.5. In another embodiment, the polylactide has additional copolymers of poly caprolactone or trimethylene carbonate to increase the compliance or flexibility of the film. In this embodiment, the healing membrane material can comprise about 60% to about 80% of a polylactide polymer, and about 20% to about 40% of the co-polymer (caprolactone and/or trimethylene carbonate).

A pre-formed healing membrane made from PLA the material can be shaped at the time of surgery by bringing the material to its glass transition temperature, using heating iron, hot air, heated sponge or hot water bath methods. The scar-tissue reduction healing membrane of the present invention preferably has a uniform thickness of less than about 300 microns, preferably less than 200 microns, and more preferably between 10 microns and 100 microns. As defined herein, the "healing membranes" of the present invention comprise thicknesses between 10 microns and 300 microns and, preferably, between 10 and 100 microns.

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The first full paragraph on page 8 has been amended to read as follows:

In accordance with one aspect of the present invention, the scar-reduction resorbable healing membrane can be heat bonded, such as with a bipolar electro-cautery device, ultrasonically welded, or similarly sealed directly to the dura of the spinal chord 30 and the exiting nerve root 32. Such a device can be used to heat the healing membrane at various locations, such as at the edges and at points in the middle, at least above its glass transition temperature, and preferably above its softening point temperature. The glass transition temperature of the preferred material (~~70:30 poly-L-lactide co-D and poly L-lactide (PLLA)~~) is about 55° Celsius, while its softening point temperature is above 110° Celsius. The material is heated along with adjacent tissue such that the two components bond together at their interface. In another embodiment, the scar-reduction resorbable healing membrane can be heat bonded or sealed directly to one or both of the vertebrae 20 and 22, or to muscle or other soft tissue, for example. In yet another embodiment, the scar-reduction resorbable healing membrane can be heat bonded or sealed directly to itself in an application, for example, wherein the healing membrane is wrapped around a structure and then heat joined to itself. Moreover, the technique of heat-sealing the healing membrane material to itself or body tissue may be combined with another attachment method for enhanced anchoring. For example, the healing membrane material may be temporarily affixed in position using two or more points of heat sealing (i.e., heat welding) using an electro-cautery device, and sutures, staples or glue can then be added to secure the healing membrane into place.